

### **ABSTRACT OF THE DISCLOSURE**

The invention provides a new sealing process for the RTM of honeycomb structures. A thermoplastic polyurethane film is first heated and adhered on the surface of honeycomb core to seal the cells. Then the general RTM process is conducted and the honeycomb products are finished. The cells with resins filled in are less than 1%. Flatwise tension and three-point bending tests are carried out to verify the bonding between the film and honeycomb core. This honeycomb core sealing can be done in less than forty minutes and the whole RTM process can be much faster than the existing methods.